

# Creating Interactive Displays of Clinical Images—Quickly & Easily

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*To ease the creation of interactive displays of medical images, BookSlate™ was developed. Its usefulness as a presentation tool is demonstrated.*

## INTRODUCTION

Learning or teaching medicine depends on images—pathology slides, clinical patient photographs, and radiological images.

One good paradigm for educational display of all these image types is a book. Another, more locally produced, is the clinical pathologic conference. In one auditorium the audience views high quality reproductions of images, while clinicians correlate their significance.

Lots of resources come together for this show. To view these images independently, outside the auditorium, is not easy. It takes a trip to the pathology or radiology departments. Similarly, photographs of recent clinical patients may exist, but they are in slide show or lecture format.

BookSlate gives clinicians & students a tool to more easily publish abundant local images as computer tutorials—which then can be browsed anytime. BookSlate was designed in HyperCard® on the Macintosh.

## THE SOFTWARE PROGRAM

Clinicians and students may not have the time or interest to learn a scripting language. Without a scripting language, presenting their information & images in an interactive format becomes problematic. A little bit of scripting knowledge can result in a hypermedia production of clumsy interface—still not accessible to an audience.

With only basic computer skills—keyboard & mouse familiarity—clinicians use BookSlate to produce shows with a consistent interface of navigation palettes and menus. Without programming a word, their information is displayed in an interactive format.

Special features let an author create “hot text.” Clicking hot text displays a picture, movie, supplemental text, or plays sounds.

Also picture “hot spots” can be defined. Touching a picture hot spot pops-up an information balloon about that region of interest.

The program’s Scratch Pad is always available for the audience to take notes, or for the author to import text files into their show.

Graphic artwork & layout is completely modifiable for each show. Even new hot text fields can be automatically created, without scripting.

Images can be stored anywhere on a hard disk or videodisc. BookSlate remembers the path to these images, or can convert image files to resources embedded in the show itself.

To get a 35mm slide into a computer, the image needs to be digitized. Digitizing costs have fallen from \$20.00 per image to less than \$1.00, due to Kodak Photo-CD technology.

Image file-size has limited the number of images in a presentation. But now, JPEG compression can shrink a 300k CT scan to 30k with undetectable loss of quality. Forty such images, plus your BookSlate shell, can fit on one floppy disk—a considerable amount of teaching material.

## ELECTRONIC POSTER PRESENTATION

In this Electronic Poster Presentation, full featured hypermedia shows will be produced in minutes from...

- ...images stored anywhere on a hard disk
- ...text files stored on a hard disk, or text written during the demonstration

The finished shows will have functioning menus, palettes, hot text, and picture hot spots—without programming a word.

Field experience, limitations, and future directions will be discussed.

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